REMARKS

Claims 1-22 were pending in this application.

Claims 1-22 have been rejected.

Claims 1-3, 5, 6, 8, 10-15, 17, 19, 21, and 22 have been amended as shown above.

Claims 1-22 remain pending in this application.

Reconsideration and full allowance of Claims 1-22 are respectfully requested.

I. OBJECTIONS TO CLAIMS

The Office Action objects to various informalities in Claims 5 and 6. The Applicants have amended Claims 5 and 6 to correct the noted informalities. Accordingly, the Applicants respectfully request withdrawal of the objections to the claims.

II. REJECTION UNDER 35 U.S.C. § 101

The Office Action rejects Claims 1-22 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. In particular, the Office Action asserts that the language of the claims "raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment, or machine which would result in a practical application producing a concrete, useful, and tangible result." (*Office Action, Page 2, Section 3*). The Office Action also asserts that the claims are "directed to a system and a method that do not require computer-implementation or use of technology to accomplish" and that the claims "allow for the involvement

of subjective human decision and therefore do not necessarily produce repeatable, concrete results." (*Office Action, Page 2, Section 3*).

According to the MPEP, a "claimed invention as a whole must accomplish a practical application," meaning that the claimed invention "must produce a 'useful, concrete and tangible result.'" (*MPEP § 2106*). A process that "consists solely of the manipulation of an abstract idea" is not "concrete or tangible." (*MPEP § 2106*). The Patent Office has "the burden to establish a *prima facie* case that the claimed invention as a whole is directed to solely an abstract idea or to manipulation of abstract ideas or does not produce a useful result." (*MPEP § 2106*). Only when a claim is "devoid of any limitation to a practical application in the technological arts should it be rejected under 35 U.S.C. 101." (*MPEP § 2106*).

First, the Office Action has not alleged that the claimed invention has no "practical application" to the technological arts. Instead, the Office Action merely states that the claim language "raises a question" as to whether the claims are directed to an abstract idea. As a result, the Patent Office has not met its burden of establishing that the claimed invention as a whole is "devoid" of any limitation to a practical application in the technological arts.

Second, the plain language of the claims clearly indicates an "application" to the technological arts. For example, Claim 2 recites that a "furnace resource allocation controller" is capable of rejecting a "selected furnace" for carrying out a "furnace task" if a "value of elapsed time" from a "furnace idle timer unit" is "greater than a specified length of time." This clearly indicates an "application" of the claimed invention to the "technological arts," unless the Patent Office takes the

position that "furnaces," "controllers," "timer units," and "furnace tasks" are only abstract ideas.

Third, to the extent the Office Action asserts that Claims 1-22 lack "computer-implementation or use of technology," the Applicants respectfully note that Claims 1-22 clearly recite the use of "timers" and performing actions based on obtaining data from one or more of the "timers." Also, 35 U.S.C. § 101 states that anyone who invents or discovers a "new and useful process" may obtain a patent, and 35 U.S.C. § 100 states that a "process" includes any "process, art, or method." Nothing in these statutes requires that method claims recite "computer-implementation or use of technology" in order to be patentable.

Fourth, the current laws, rules, and MPEP do not require that system and method claims be devoid of any limitations that may involve "subjective human decision." Moreover, nothing in any of these sources indicates that claims fail to produce "repeatable, concrete results" if "subjective human decision" is involved.

The undersigned is aware of rumors that the Board of Patent Appeals and Interferences may shortly issue a precedential opinion addressing or changing the required examination of claims such as Claims 1-22. However, until such an opinion is issued (if it ever issues), the undersigned respectfully submits that the Patent Office is bound to follow the current law, rules, and MPEP.

Accordingly, the Applicants respectfully request withdrawal of the § 101 rejection and full allowance of Claims 1-22.

III. REJECTION UNDER 35 U.S.C. § 112

The Office Action rejects Claims 1-22 under 35 U.S.C. § 112, second paragraph, as failing to particularly point out and distinctly claim the subject matter regarded as the invention. In particular, the Office Action asserts that the phrase "remain-open threshold" is unclear. The Applicants have amended Claims 1 and 12 as shown above. The Applicants respectfully submit that amended Claims 1 and 12 are clear. Also, Claims 2-11 and 13-22 no longer contain this recitation. Accordingly, the Applicants respectfully request withdrawal of the § 112 rejection and full allowance of Claims 1-22

IV. REJECTION UNDER 35 U.S.C. § 102

The Office Action rejects Claims 1 and 12 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Publication No. 2003/0171972 to Heskin ("*Heskin*"). The Applicant respectfully traverses this rejection.

A prior art reference anticipates a claimed invention under 35 U.S.C. § 102 only if every element of the claimed invention is identically shown in that single reference, arranged as they are in the claims. (*MPEP § 2131; In re Bond, 910 F.2d 831, 832, 15 U.S.P.Q.2d 1566, 1567 (Fed. Cir. 1990)*). Anticipation is only shown where each and every limitation of the claimed invention is found in a single prior art reference. (*MPEP § 2131; In re Donohue, 766 F.2d 531, 534, 226 U.S.P.Q. 619, 621 (Fed. Cir. 1985)*).

Heskin recites a structure for use with wafer fabrication and planning systems. (*Abstract*). Part of the structure includes a furnace report. (*Par. [0046]*). Generation of the furnace report

involves identifying whether furnaces will be ready to receive wafer lots when expected. (*Par. [0046]*). The priorities of the wafer lots are then adjusted based on whether the furnaces will be available. (*Par. [0046]*). Alternatively, a decision could be made to idle a furnace and increase the batch size sent through the furnace at a later time. (*Par. [0047]*).

Heskin simply recites a mechanism for scheduling when wafer lots will be placed into a furnace. *Heskin* lacks any mention of monitoring one or more furnaces relative to a "remain-open threshold," where the remain-open threshold is "associated with an amount of time" the one or more furnaces are "allowed to remain open" as recited in Claims 1 and 12. As a result, *Heskin* does not anticipate all elements of Claims 1 and 12.

For these reasons, *Heskin* does not anticipate the Applicants' invention as recited in Claims 1 and 12. Accordingly, the Applicants respectfully request the withdrawal of the § 102 rejection and full allowance of Claims 1 and 12.

V. CONCLUSION

The Applicants respectfully assert that all pending claims in this application are in condition for allowance and respectfully request full allowance of the claims.

SUMMARY

If any outstanding issues remain, or if the Examiner has any further suggestions for expediting allowance of this application, the Applicants respectfully invite the Examiner to contact the undersigned at the telephone number indicated below or at *wmunck@davismunck.com*.

The Applicants have included the appropriate fee to cover the cost of one additional independent claim. The Commissioner is hereby authorized to charge any additional fees connected with this communication (including any extension of time fees) or credit any overpayment to Deposit Account No. 50-0208.

Respectfully submitted,

DAVIS MUNCK, P.C.

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